Section 1. Registration Information

Source Identification

Facility Name: South Point Energy Center Parent Company #1 Name: Calpine Corporation

Parent Company #2 Name:

Submission and Acceptance

Submission Type: Re-submission

Subsequent RMP Submission Reason: 5-year update (40 CFR 68.190(b)(1))

Description:

 Receipt Date:
 20-May-2011

 Postmark Date:
 20-May-2011

 Next Due Date:
 20-May-2016

 Completeness Check Date:
 20-May-2011

Complete RMP: Yes

De-Registration / Closed Reason:

De-Registration / Closed Reason Other Text:

De-Registered / Closed Date:

De-Registered / Closed Effective Date:

Certification Received: Yes

Facility Identification

EPA Facility Identifier: 1000 0017 5151

Other EPA Systems Facility ID:

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:

Parent Company #1 DUNS: 112710876

Parent Company #2 DUNS:

Facility Location Address

Street 1: 3779 Courtwright Road

Street 2:

City: Mohave Valley State: ARIZONA ZIP: 86440

ZIP4:

County: MOHAVE

Facility Latitude and Longitude

Latitude (decimal):

Longitude (decimal):

Lat/Long Method:

Lat/Long Description:

34.867722

-114.533561

GPS - Unspecified

Process Unit

Horizontal Accuracy Measure: 2

Horizontal Reference Datum Name: North American Datum of 1983

Source Map Scale Number:

Owner or Operator

Operator Name: Calpine Corporation
Operator Phone: (928) 346-7000

Mailing Address

Operator Street 1: PO Box 5619

Operator Street 2:

Operator City: Mohave Valley
Operator State: ARIZONA
Operator ZIP: 86446

Operator ZIP4:

Operator Foreign State or Province:

Operator Foreign ZIP: Operator Foreign Country:

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:

RMP Title of Person or Position:

James D. Doherty
Plant Manager

RMP E-mail Address: jdoherty@calpine.com

Emergency Contact

Emergency Contact Name:Brian WegnerEmergency Contact Title:Operations ManagerEmergency Contact Phone:(928) 346-7004Emergency Contact 24-Hour Phone:(928) 208-1232

Emergency Contact Ext. or PIN:

Emergency Contact E-mail Address: bwegner@calpine.com

Other Points of Contact

Facility or Parent Company E-mail Address:

Facility Public Contact Phone: (408)
Facility or Parent Company WWW Homepage www

Address:

(408) 792-1244 www.calpine.com

Local Emergency Planning Committee

LEPC: Mohave County LEPC

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site: 23

FTE Claimed as CBI:

Covered By

 OSHA PSM :
 Yes

 EPCRA 302 :
 Yes

 CAA Title V:
 Yes

 Air Operating Permit ID:
 AZ-98-01

OSHA Ranking

OSHA Star or Merit Ranking:

Last Safety Inspection

Last Safety Inspection (By an External Agency)

Last Safety Inspection Performed By an External

Agency:

18-May-2011

Mohave Valley Fire Department

Predictive Filing

Did this RMP involve predictive filing?:

Preparer Information

Preparer Name: Risk Management Professionals

Preparer Phone: (949) 282-0123 Preparer Street 1: 300 Goddard Preparer Street 2: Suite 200 Preparer City: Irvine Preparer State: **CALIFORNIA** Preparer ZIP: 92618

Preparer ZIP4:

Preparer Foreign State: Preparer Foreign Country: Preparer Foreign ZIP:

Confidential Business Information (CBI)

CBI Claimed:

Substantiation Provided: Unsanitized RMP Provided:

Reportable Accidents

Reportable Accidents: See Section 6. Accident History below to determine

if there were any accidents reported for this RMP.

Process Chemicals

Process ID: 1000027106

Description: Selective Catalytic Red.

Process Chemical ID: 1000032229

Program Level: Program Level 3 process Chemical Name: Ammonia (anhydrous)

CAS Number: 7664-41-7 130000 Quantity (lbs):

CBI Claimed:

Flammable/Toxic: Toxic

Process NAICS

Process ID: 1000027106
Process NAICS ID: 1000027408

Program Level: Program Level 3 process

NAICS Code: 221112

NAICS Description: Fossil Fuel Electric Power Generation

Section 2. Toxics: Worst Case

Toxic Worst ID: 1000022457

Percent Weight:

Physical State: Gas liquified by pressure Model Used: EPA's RMP*Comp(TM)

Release Duration (mins):10Wind Speed (m/sec):1.5Atmospheric Stability Class:FTopography:Rural

Passive Mitigation Considered

Dikes:
Enclosures:
Berms:
Drains:
Sumps:

Other Type:

Yes

Section 3. Toxics: Alternative Release

Toxic Alter ID: 1000024184

Percent Weight:

Physical State: Gas liquified by pressure Model Used: EPA's RMP*Comp(TM)

Wind Speed (m/sec): 3.0
Atmospheric Stability Class: D
Topography: Rural

Passive Mitigation Considered

Dikes:
Enclosures:
Berms:
Drains:
Sumps:
Other Type:

Active Mitigation Considered

Sprinkler System:

Deluge System:

Water Curtain: Neutralization: Excess Flow Valve:

Flares: Scrubbers:

Emergency Shutdown:

Other Type:

Section 4. Flammables: Worst Case

No records found.

Section 5. Flammables: Alternative Release

No records found.

Section 6. Accident History

Accident History ID: 1000017838

Date of Accident: 11-Mar-2009

Time Accident Began (HHMM): 0805 NAICS Code of Process Involved: 221112

NAICS Description: Fossil Fuel Electric Power Generation

Release Duration: 000 Hours 27 Minutes

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Gas Release: Yes

Liquid Spill/Evaporation:

Fire: Explosion:

Uncontrolled/Runaway Reaction:

Release Source

Storage Vessel:

Piping:

Process Vessel:

Transfer Hose:

Valve: Pump: Joint:

Other Release Source: Ammonia Blower

Weather Conditions at the Time of Event

Wind Speed:

Units: Direction: Temperature:

Atmospheric Stability Class: Precipitation Present:

Unknown Weather Conditions: Yes

On-Site Impacts

Employee or Contractor Deaths: 0
Public Responder Deaths: 0
Public Deaths: 0
Employee or Contractor Injuries: 0
Public Responder Injuries: 0
Public Injuries: 0
On-Site Property Damage (\$): 0

Known Off-Site Impacts

Deaths: 0
Hospitalization: 0
Other Medical Treatments: 0
Evacuated: 0

Facility Name: South Point Energy Center EPA Facility Identifier: 1000 0017 5151 Plan Sequence Number: 1000022238 0 Sheltered-in-Place: 0 Off-Site Property Damage (\$): **Environmental Damage** Fish or Animal Kills: Tree, Lawn, Shrub, or Crop Damage: Water Contamination: Soil Contamination: Other Environmental Damage: **Initiating Event** Initiating Event: Human Error **Contributing Factors** Equipment Failure: Human Error: Yes Improper Procedures: Yes Overpressurization: **Upset Condition:** By-Pass Condition: Maintenance Activity/Inactivity: Process Design Failure: Unsuitable Equipment: **Unusual Weather Condition:** Management Error: Other Contributing Factor: Off-Site Responders Notified Off-Site Responders Notified: No, not notified Changes Introduced as a Result of the Accident Improved or Upgraded Equipment: Yes Revised Maintenance: **Revised Training: Revised Operating Procedures:** Yes New Process Controls: Yes New Mitigation Systems: Revised Emergency Response Plan: Changed Process: Reduced Inventory: Other Changes Introduced: **Confidential Business Information** CBI Claimed: Chemicals in Accident History

Accident Chemical ID: 1000014067

Quantity Released (lbs): 18
Percent Weight: 100.0

Chemical Name: Ammonia (anhydrous)

CAS Number: 7664-41-7 Flammable/Toxic: Toxic

Section 7. Program Level 3

Description

RMP/PSM Program for the Selective Catalytic Reduction Process

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID: 1000027522

Chemical Name: Ammonia (anhydrous)

Flammable/Toxic: Toxic CAS Number: 7664-41-7

Prevention Program Level 3 ID: 1000023258 NAICS Code: 221112

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):

10-Feb-2006

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):

15-Feb-2011

The Technique Used

What If:

Checklist:

What If/Checklist:

Yes

HAZOP:

Failure Mode and Effects Analysis:

Fault Tree Analysis: Other Technique Used:

PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):

15-Aug-2011

Major Hazards Identified

Toxic Release:

Yes

Fire: Explosion: Yes Yes

Runaway Reaction:

Polymerization:

Yes

Overpressurization: Corrosion:

Yes

Overfilling:

Earthquake:

Yes

Contamination:

Equipment Failure:

Yes

Loss of Cooling, Heating, Electricity, Instrument Air:

Yes

Floods (Flood Plain):

Yes

Facility Name: South Point Energy Center EPA Facility Identifier: 1000 0017 5151 Plan Sequence Number: 1000022238 Tornado: Hurricanes: Other Major Hazard Identified: **Process Controls in Use** Vents: Relief Valves: Yes Check Valves: Yes Scrubbers: Flares: Manual Shutoffs: Yes Automatic Shutoffs: Interlocks: Yes Alarms and Procedures: Yes Keyed Bypass: Emergency Air Supply: **Emergency Power:** Backup Pump: Grounding Equipment: Inhibitor Addition: Rupture Disks: **Excess Flow Device:** Yes Quench System: Purge System: None: Other Process Control in Use: Mitigation Systems in Use Sprinkler System: Dikes: Yes Fire Walls: Blast Walls: Deluge System: Water Curtain: Enclosure: Neutralization: None: Other Mitigation System in Use: Monitoring/Detection Systems in Use Process Area Detectors: Yes Perimeter Monitors: None: Other Monitoring/Detection System in Use: Changes Since Last PHA Update Reduction in Chemical Inventory:

Installation of Process Detection Systems:

Data displayed is accurate as of 12:00 AM (EDT) Wednesday, April 09, 2014

Increase in Chemical Inventory: Change Process Parameters: Installation of Process Controls:

Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

None: Yes

Other Changes Since Last PHA or PHA Update:

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 10-Jan-2011

Training

Training Revision Date (The date of the most recent 19-Aug-2010 review or revision of training programs):

The Type of Training Provided

Classroom: Yes
On the Job: Yes
Other Training:

The Type of Competency Testing Used

Written Tests: Yes

Oral Tests:
Demonstration:

Observation: Yes

Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of 16-May-2011 the most recent review or revision of maintenance procedures):

Equipment Inspection Date (The date of the most recent equipment inspection or test):

08-Jan-2010

Equipment Tested (Equipment most recently inspected or tested):

Ammonia Storage Tanks

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

Pre-Startup Review

Facility Name: South Point Energy Center
EPA Facility Identifier: 1000 0017 5151

Plan Sequence Number: 1000022238

Pre-Startup Review Date (The date of the most

recent pre-startup review):

Compliance Audits

Compliance Audit Date (The date of the most recent 14-Dec-2010 compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

14-Jun-2011

12-Apr-2001

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

02-May-2006

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most 01-Mar-2011 recent review or revision of hot work permit procedures):

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

01-Mar-2011

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

24-Nov-2008

Confidential Business Information

CBI Claimed:

Facility Name: South Point Energy Center EPA Facility Identifier: 1000 0017 5151

Plan Sequence Number: 1000022238

Section 8. Program Level 2

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Yes

Facility Plan (Does facility have its own written emergency response plan?):

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Healthcare (Does facility's ER plan include information on emergency health care?):

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan):

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees):

Local Agency

Agency Name (Name of local agency with which the Mohave Valley Fire Department facility ER plan or response activities are coordinated):

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):

(928) 768-9113

Subject to

OSHA Regulations at 29 CFR 1910.38: Yes OSHA Regulations at 29 CFR 1910.120: Yes Clean Water Regulations at 40 CFR 112: Yes RCRA Regulations at CFR 264, 265, and 279.52: Yes OPA 90 Regulations at 40 CFR 112, 33 CFR 154, Yes 49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws: Yes

Other (Specify):

Executive Summary

Introduction

Calpine Corporation's South Point Energy Center uses anhydrous ammonia as a necessary part of reducing the emissions of nitrogen oxides to the atmosphere. Storing a large quantity of ammonia can be a hazard if it is not handled properly. As the company responsible for operating South Point Energy Center, Calpine Corporation take its safety obligations in storing and using ammonia as seriously as we take controlling emissions from the power plant. The following document describes what could happen if there were to be an accident, the steps we take every day to ensure a safely operating plant, and what to do in the event of an emergency.

Accidental Release Prevention and Emergency Response Policies

The South Point Energy Center accidental release prevention policy involves a unified approach that integrates proven technology, staff training on operation and maintenance practices, and tested management system practices. All applicable procedures of the State of Arizona and U.S. Environmental Protection Agency (EPA) Prevention Program are adhered to, including key elements such as training, systems management, and emergency response procedures.

This document complies with the EPA Risk Management Program under Section 112 (r) of the Clean Air Act (CAA) Amendments of 1990, 40 Code of Federal Regulations (CFR) Part 68. This document summarizes our existing health and safety programs, our internal management response procedures, and ongoing actions that are designed to prevent or minimize impacts of accidental releases of ammonia to the environment. South Point Energy Center has prepared an emergency action plan to handle any potential accidental releases.

General Facility and Regulated Substances Information

The South Point Energy Center is located at 3779 Courtwright Road, Mohave Valley, Arizona, in Mohave County. This power plant is located on a 320-acre property on the Fort Mojave Indian Reservation on the lower western slopes of the Black Mountains. Havasu National Wildlife Refuge and the Topock Marsh lie approximately 1.2 miles south. South Point Energy Center is a natural gas fired 544 megawatt combined cycle power plant. Electricity generated by this facility is transported by lines owned by the Western Area Power Administration (WAPA). Power is delivered from the plant to the Topock substation off-site by two 230 kV transmission lines in order to wheel power to the WAPA distribution grid. The electricity will be sold under a variety of short-, mid-, and long-term contracts into the Arizona, California, and Nevada markets.

The facility currently stores anhydrous ammonia, a regulated toxic substance under RMP regulations, in two 14,193 gallon (filled to 85 percent capacity) steel bulk storage tanks. Ammonia is used at the South Point Energy Center to reduce nitrogen oxides (NOx) created during the combustion of natural gas and exhausted from the two Combustion Turbine Generators (CTG) and Heat Recovery Steam Generators (HRSG) duct burners. Ammonia vapor is drawn from the top of the storage tank and diluted with air, and injected into the two Selective Catalytic Reduction (SCR) units to reduce the NOx emissions.

The maximum quantity of anhydrous ammonia stored at South Point Energy Center exceeds the federal RMP specified threshold quantities of 10,000 lbs; thus, the facility is subject to federal RMP regulations.

Relief Valves. Pressure relief valves are located throughout the process system to protect against excess pressure. All process related factory-set pressure relief valves are set to protect the safety of workers and the integrity of the equipment piping from the storage tank is equipped with excess-flow valves to stop the flow from the bulk tank in event of emergency.

Secondary Containment. The ammonia storage tanks and vaporizer are located inside a secondary containment area sufficient to contain 120% of the tank capacity. The dimension of the containment area is 43 feet by 46 feet by 39 inches high.

Leak Detection. Two Chillgard RT leak detectors are provided for the system to perform ambient ammonia monitoring. These monitors provide a signal to the Control Room to manually activate the deluge systems when high levels of ammonia are detected. These sensors are located north and south of the secondary containment unit and set to alarm when an ammonia concentration of 200 ppm is detected in the air.

Alarm System. The ammonia process is checked during every 12-hour shift as part of the normal rounds at South Point Energy

Center. The storage tank is provided with local pressure indicator (in psig) and level indicators (in percent volume). The tank also has pressure safety valves, temperature gauges, and ammonia leak detectors. Tank level, temperature, and pressure indication is displayed locally and indication and alarms are displayed on the Control Room Distributed Control System (DCS).

Emergency Shower and Eyewash. An emergency eyewash and shower are provided at the truck unloading station near the ammonia storage tank.

Deluge System. A deluge water system, consisting of one spray monitor attached to a fire hydrant located west of the containment area, is provided to dissipate an ammonia vapor cloud in case of a leak. The system will be manually activated in the event of an ammonia leakage.

Solenoid Shut-Off Valve. On each ammonia storage tank there is a solenoid shut-off valve. This is an electronically operated ball valve that is controlled by the DCS system to initiate valve closure in the event of a leak detected in the process piping.

Site Security. The main gate, located on Courtwright Road on the south side of the plant, provides the primary access to South Point Energy Center. It is kept closed at all times and it equipped with a keypad, call box, and closed circuit camera so that the Control Room personnel may identify and grant access to visitors at the gate. A perimeter fence encloses the facility. There are two emergency exits gates; one is located north of the cooling tower, and the other is on the west side of the service water/firewater pond in the northwest corner of the property.

Worst-Case Release Scenario Results Summary

Scenario Description: Per the Regulations, one worst-case analysis has been defined for the process. The results can be found in the in the Compliance Workbook.

Alternative Release Scenario Results Summary

Scenario Description: A realistic alternative release scenario was defined for the process. The results can be found in the Compliance Workbook.

Risk Considerations

Although the storage and use of anhydrous ammonia has inherent potential risks; CalPine has recognized these potential risks and structured its safety programs to make the worst-case type of event non-credible. In addition to the safety practices of the company and facility personnel to make this worst-case event non-credible, it should also be recognized that there are inherent analysis assumptions that make the results of the atmospheric dispersion analysis appear worse than what would actually be expected during such an event (e.g., In the event of a release, sudden rupture and flashing of ammonia would be highly turbulent. Turbulence causes entrainment of air and the released vapor dilutes much more quickly than is shown in the model).

In addition to the use of conservative analysis assumptions that over-predict the effects of a potential release, other characteristics of the facility and site serve to minimize the potential risks associated with an ammonia release:

¿ There are process valves to permit isolation of any leaks in place.

 $\hat{A}_{\dot{c}}$ The system undergoes scheduled maintenance to reduce the likelihood of catastrophic failures.

¿ Personal Protective Equipment (PPE) is used by facility personnel, as necessary.

Summary of the Accidental Release Prevention Program and Chemical-Specific Prevention Steps

South Point Energy Center is in compliance with Federal Process Safety Management (PSM) requirements. Chemical-specific prevention steps include awareness of the hazardous and toxic properties of anhydrous ammonia; the presence of ammonia detectors and alarms, and a deluge system to mitigate any releases.

The South Point Energy Center accidental release prevention program is based on the following key elements:

- Â- Detailed management system and clear levels of responsibilities and team member roles
- Â. Comprehensive safety process information that is readily available to staff, emergency responders, and contractors
- Â. Comprehensive preventive maintenance program
- Â. A process hazard analysis of equipment and procedures with operation and maintenance staff participation and review
- Â- Use of state-of-the-art process and safety equipment

- Â- Use of accurate and effective operating procedures, written with operations and maintenance staff participation
- Â. High level of training of operators and maintenance staff
- Â- Implementation of an incident investigation, inspection, and auditing program using qualified staff

Process and Chemical Safety Information

Comprehensive chemical data have been assembled to include regulatory reporting and action thresholds, health hazards, and chemical exposure limitations, as well as detailed physical properties of each regulated substance. This information was compiled from numerous sources and is intended to be a one-stop source for the reader seeking data about these substances. This information includes ammonia background information, material safety data sheets (MSDS), and ammonia reaction chemistry. Equipment safety information has been compiled on the ammonia process, and specifications for the process are compiled in one place for easy reference. Details such as maximum intended inventory, safe upper and lower operating temperatures and pressures, and codes and standards used to design, build, and operate the processes are on file at the facility.

We also have scheduled reviews of our risk management program and process safety management plan to update safety information if there is a major change that would make existing information inaccurate.

Process Hazard Analysis

In February 2011, a detailed process hazard analysis (PHA) was conducted with plant operations, maintenance, engineering, and administrative staff for the regulated process. The team consisted of process operating and maintenance experts and the plant engineers. The PHA technique used was a What If Analysis/Checklist Method, one of EPA's recommended approaches. The PHA was led by a person knowledgeable on the type of process being reviewed. This review will be updated again within a 5-year period or whenever there is major change in the process. A list of actions to resolve any significant findings from the analysis was prepared, and staff is currently working to resolve this action item list. Staff will document completion of any action item.

Operating Procedures

South Point Energy Center maintains up-to-date, accurate, written operating procedures that give clear instructions for the ammonia process. South Point Energy Center ensures effective operating practices by combining them with operating and maintenance training programs. Standard operating procedures (SOPs) provide system descriptions, specifications, equipment inspection requirements, and operating procedures for the ammonia system. Procedures include startup, shutdown, and normal, alternate, and emergency operation. Also included are maintenance and troubleshooting procedures, including consequences of deviation and steps to avoid or correct deviations. South Point Energy Center will update procedures whenever a change occurs that alters the steps needed to operate safely. Operating procedures will be developed and implemented prior to any new process equipment coming on line or a changed process starting up.

Operations and Maintenance Training Program

Each South Point Energy Center employee presently involved in operating or maintaining the ammonia process is trained in an overview of the process and applicable operating and maintenance procedures. Training helps employees understand the nature and cause of problems arising from operations involving ammonia, and increases employee awareness of hazards. South Point Energy Center's training program includes both initial and refresher training that covers: (1) a general overview of the processes, (2) the properties and hazards of the substances in the process, and (3) a detailed review of the process operating procedures and safe work practices. Oral reviews and written self-evaluations are used to verify that an employee understands the training material before the process work can be resumed.

Training documentation includes: date of most recent review or revision to the training program, type of training required and the type of competency testing used to ensure staff understands the training. Ongoing employee training records are maintained.

Contractors

The South Point Energy Center has procedures and policies in place that ensure that only contractors with good safety programs are selected to perform work on and around the ammonia process. Contractors are properly informed of the hazards, access limitations to these process areas, and emergency response procedures, and are prepared to safely complete the work. The South

Point Energy Center sets minimum contractor safety performance requirements for work in process areas, holds contractor safety briefings before allowing them near or in the process area, controls access to the process areas, and evaluates the contractor's performance.

Pre-Startup Safety Review and Mechanical Integrity Program

South Point Energy Center ensures that a pre-startup safety review is completed for any new regulated process at the plant, or for significant modifications to an existing covered process that requires a change in the process safety information. South Point Energy Center maintains the mechanical integrity of process equipment to help prevent equipment failures that could endanger workers, the public, or the environment. We believe that this program is the primary line of defense against a release. Maintenance staff address equipment testing and inspection, preventative maintenance schedules, and personnel training of these procedures. Our mechanical integrity program includes the following:

Â. Visual inspections twice per day of ammonia tanks, lines, and equipment.

· Training of maintenance and operations personnel in safe work practices such as lockout/tagout, line or equipment opening, and avoidance and correction of unsafe conditions

· Procedures specifying training requirements for contract maintenance employees, as well as requiring contractors to use plantdeveloped maintenance procedures for process areas

Hot Work Permits and Management of Change

South Point Energy Center requires employees and contractors to employ safe work practices when performing "hot work" in, on, or around the regulated processes. South Point Energy Center uses a comprehensive permitting and training program to ensure hot work is conducted safely.

South Point Energy Center provides a system and approach to maintain and implement management of changes or modifications to equipment, procedures, chemicals, and processing conditions. This system allows our employees to identify and review safety hazards or provide additional safety, process, or chemical information before the proposed change is implemented.

Internal Compliance Audits

Internal compliance audits are conducted every three years to verify compliance with the programs and procedures contained in the RMP. South Point Energy Center assembles an audit team that includes personnel knowledgeable in the Risk Management Program rule and in the regulatory process. This team evaluates whether the prevention program satisfies the requirements of the RMP rule and whether the prevention program is sufficient to help ensure safe operation. The results of the audit are documented, recommendations are resolved, and appropriate enhancements to the prevention program are implemented.

Incident Investigation

South Point Energy Center investigates all incidents that could reasonably have resulted in a serious injury to personnel, the public, or the environment, so that similar accidents can be prevented. South Point Energy Center trains employees to identify and report any incident that requires investigation. An investigation team is assembled and the investigation is initiated within 48 hours of any incident. The results of the investigation are documented, recommendations are resolved, and appropriate process enhancements are implemented. Information found during the investigation is reviewed by appropriate staff and is added to, or used to revise operating and maintenance procedures. Information from audits and any resulting changes in operating procedures are passed onto the training unit for their inclusion in existing training programs, if warranted, to prevent a future event.

Five-Year Accident History Summary

EPA RMP regulations require reporting the five-year accident history of the covered processes. The details of accidental releases are required for accidents that have caused at least one of the following:

Â. Onsite deaths, injuries, or significant property damage

· Known offsite deaths, injuries, property damage, environmental damage, evacuations, or sheltering in place Refer to the RMPeSubmit form for information regarding any accidents in the last five years.

Emergency Response Program Summary

South Point Energy Center has established a written emergency action program that is followed by the employees to help safely control accidental releases of hazardous substances. This program has been coordinated (reviewed) by the Mohave Valley Fire Department, which is a member of the Local Emergency Response Planning Committee (LEPC). This program includes an emergency action and notification plan. Emergency operation and action procedures are also reviewed once per year.

Planned Changes to Improve Safety

During the process hazard analysis, several additional risk reduction measures were recommended to improve safety at South Point Energy Center. These measures included instituting an overhead work policy to ensure material is not carried over the storage tank and confirming that the ammonia vendor has a preventive maintenance program for the delivery truck hoses.